

**REMARKS**

Applicants have carefully reviewed the Application in light of the Office Action transmitted July 27, 2007 (“*Office Action*”). At the time of the *Office Action*, Claims 1-22 were pending in the Application. Claims 1-22 are rejected. Applicants amend Claims 10 and 18 to correct typographical errors. No new matter has been entered. Applicants respectfully request reconsideration and favorable action in this case.

**I. Claim Objections**

The Examiner objects to Claims 1-18, asserting that the terms “operable” and “capable” make the limitations following them to be optional, which renders the metes and bounds of the claim to be indefinite. *Office Action*, p. 2. Applicants respectfully disagree and submit that the terms “operable” and “capable” do not make the limitations following them to be optional.

Claim 1, for example, recites “a plurality of ports operable to communicate packets.” These claimed aspects are not optional, as asserted by the *Office Action*. Instead, Claim 1 clearly requires a plurality of ports operable to communicate packets. *See Ex parte Ciarla*, Appeal No. 2000-2128, 2002 WL 1801096 (Bd. Pat. App & Interf.) (“The [operable] language which the examiner characterizes as ‘merely intended uses’ constitutes recitations of the functions of two means-plus-function elements . . . ; it therefore cannot be minimized or ignored, but rather, in order to anticipate the claim, [the cited reference] must disclose structure capable of performing those functions.”)

Accordingly, Applicants respectfully submit that the claim term “operable” does not “mak[e] the limitations following it to be optional,” as asserted by the *Office Action*. Thus Claims 1-18 are patentable over the cited art. Applicants respectfully request reconsideration and allowance of the claims.

**II. Claim Rejections under 35 U.S.C. § 103**

The Examiner rejects Claims 1-22 under 35 U.S.C. § 103(a) as unpatentable over U.S. Patent No. 5,949,786 issued to Bellenger (“*Bellenger*”) in view of U.S. Patent No.

6,084,856 issued to Simmons, et al. ("*Simmons*"). Applicants respectfully traverse the rejection on the ground that *Bellenger* and *Simmons*, whether taken alone or in combination, fail to teach or suggest all limitations of the claims.

Consider Applicants' independent Claim 1, which recites:

A switch comprising:  
a plurality of ports operable to communicate packets;  
a switch fabric operable to transport received packets between the ports;  
a plurality of memory banks logically divided into a plurality of rows, wherein each of the rows comprises a storage location from each of the memory banks, each of the storage locations capable of maintaining a routing entry;  
an overflow buffer comprising a plurality of overflow storage locations each capable of maintaining a routing entry; and  
a memory control module operable to receive a memory access request from one of the ports, to determine a particular one of the rows based on an address indicated by the memory access request, and to access the indicated row and the overflow buffer to perform a memory access operation.

The references, whether taken alone or in combination, fail to teach or suggest every element of this claim.

Among other aspects, *Bellenger* and *Simmons*, whether alone or in combination, fail to disclose (1) "a plurality of memory banks logically divided into a plurality of rows, wherein each of the rows comprises a storage location from each of the memory banks," and (2) "an overflow buffer comprising a plurality of overflow storage locations each capable of maintaining a routing entry," as required by Claim 1.

**A. The cited references fail to teach "a plurality of memory banks logically divided into a plurality of rows, wherein each of the rows comprises a storage location from each of the memory banks."**

Claim 1 requires "a plurality of memory banks logically divided into a plurality of rows, wherein each of the rows comprises a storage location from each of the memory banks." As teaching these aspects, the *Office Action* points to *Bellenger*, Figure 2, RDRAM. *Office Action*, pp. 2-3. *Bellenger*'s Figure 2 depicts RDRAM, labeled a memory 108. *Bellenger* describes the memory 108 as "stor[ing] a route table 120 and

frame buffers 121.” Col. 5, lines 5-6. *Bellenger* further states that the “route table 120 includes a plurality of accessible memory locations.” Col. 5, lines 6-7. However, *Bellenger*’s memory 108 fails to teach or suggest “a plurality of memory banks logically divided into a plurality of rows, wherein each of the rows comprises a storage location from each of the memory banks,” as Claim 1 requires.

*Simmons* fails to remedy the deficiencies of *Bellenger*. Independent Claims 10 and 18 include limitations that, for substantially similar reasons, are not taught by *Bellenger* or *Simmons*. Because *Bellenger* and *Simmons* do not teach or suggest every element of independent Claims 1, 10, and 18, Applicants respectfully request reconsideration and allowance of Claims 1, 10, and 18 and their respective dependent claims.

**B. The cited references fail to teach “an overflow buffer comprising a plurality of overflow storage locations each capable of maintaining a routing entry.”**

Claim 1 requires “an overflow buffer comprising a plurality of overflow storage locations each capable of maintaining a routing entry.” The Examiner admits that *Bellenger* “is silent on overflow buffer having multiple storage location and maintaining routing entry and to access row and the overflow buffer to perform a memory access operation.” *Office Action*, p. 3. As teaching these claimed aspects, the *Office Action* relies on *Simmons*. *Office Action*, p. 3. Specifically, the *Office Action* cites *Simmons*, Figures 4, 5, and 7A and Abstract, as disclosing an overflow buffer. *Office Action*, p. 3. The Abstract in *Simmons* describes “an external memory, where the network switch uses the external memory for storing received data frames . . . and output port overflow data.” However, an “external memory . . . for storing received data frames” fails to teach or suggest “an overflow buffer comprising a plurality of overflow storage locations each capable of maintaining a routing entry,” as Claim 1 requires.

As teaching these claimed aspects, the *Office Action* also cites *Simmons*, column 2, lines 41-56 as disclosing “overflow regions with respect to network ports.” *Office Action*, p. 3. The cited portion of *Simmons* states that “[u]se of a shared memory for

providing overflow regions for the respective network ports enables busy network ports to temporarily store overflow data.” Col. 2, lines 49-50. The *Office Action* further cites *Simmons*, column 8, lines 29-59, as disclosing a buffer manager that “uses control queues for buffer pool.” *Office Action*, p. 3. The cited portion of *Simmons* refers to a buffer manager that manages “the process of allocating buffers to store received data frames, and retrieving buffers for re-use once the frame has been transmitted to its designated output port(s).” Col. 8, lines 37-40. In addition, the *Office Action* cites *Simmons*, column 10, lines 8-65, for the proposition that “overflow areas store excess entries that fail to fit in control queues.” *Office Action*, p. 3. As described above, *Simmons*’s overflow regions with respect to network ports store overflow data comprising received data frames. These cited portions of *Simmons*, however, fail to teach or suggest “an overflow buffer comprising a plurality of overflow storage locations each capable of maintaining a routing entry,” as Claim 1 requires.

As the Examiner admits, *Bellinger* fails to remedy the deficiencies of *Simmons*. Independent Claims 10 and 18 include limitations that, for substantially similar reasons, are not taught by *Simmons* and *Bellinger*. Because *Simmons* and *Bellinger* do not teach or suggest every element of independent Claims 1, 10, and 18, Applicants respectfully request reconsideration and allowance of Claims 1, 10, and 18 and their respective dependent claims.

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**CONCLUSION**


Applicants have made an earnest attempt to place this case in condition for immediate allowance. For the foregoing reasons and for all other reasons clear and apparent, Applicants respectfully request reconsideration and full allowance of this Application.

If there are matters that can be discussed by telephone to advance prosecution of this application, Applicants invite the Examiner to contact the undersigned attorney at the Customer Number listed below.

No fees are believed to be due, however, the Commissioner is hereby authorized to charge any additional amount required or to credit any overpayment to Deposit Account No. 02-0384 of BAKER BOTTS L.L.P.

Respectfully submitted,

BAKER BOTTS L.L.P.  
Attorneys for Applicants

A handwritten signature in black ink, appearing to read 'K-M Pankratz', is written over a horizontal line.

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Date: Oct 26, 2007

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